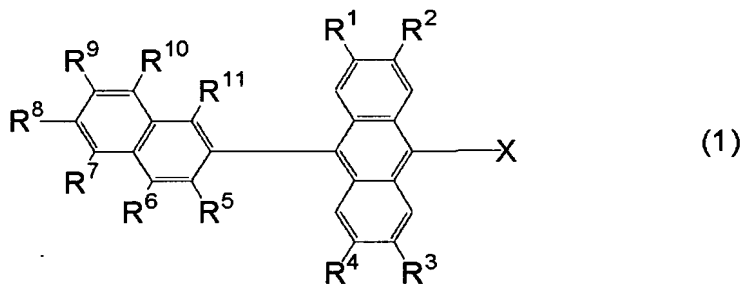


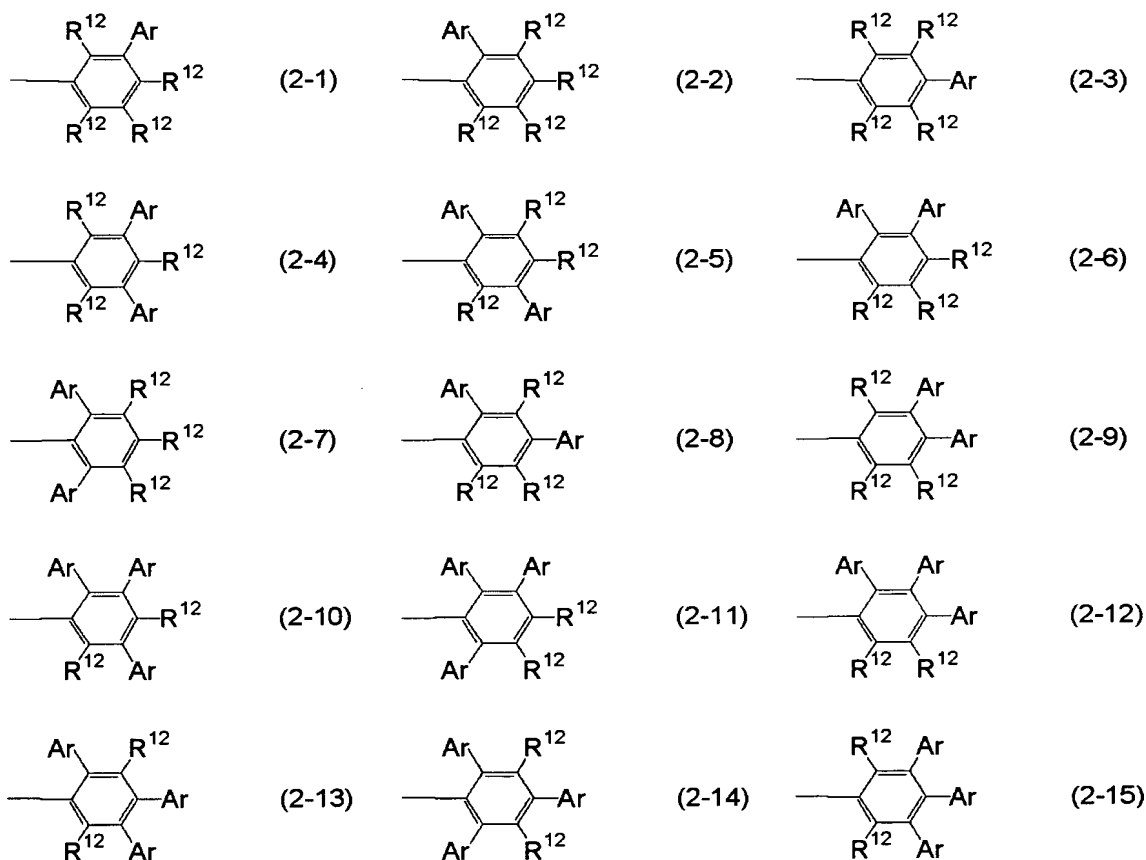
What is claimed is:

1. An organic electroluminescent device which is sandwiched between an anode and a cathode and which comprises at least a hole transport layer, an emission layer and an electron transport layer, wherein the emission layer comprises an anthracene derivative represented by Formula (1) shown below as a host and at least one selected from a perylene derivative, a borane derivative, a coumarin derivative, a pyran derivative, an iridium complex and a platinum complex as a dopant:

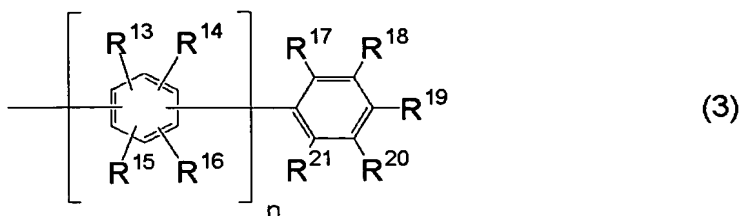


- wherein R<sup>1</sup> to R<sup>4</sup> are independently hydrogen or alkyl having 1 to 12 carbon atoms, and optional -CH<sub>2</sub>- in the above alkyl having 1 to 12 carbon atoms may be replaced by -O-; R<sup>5</sup> to R<sup>11</sup> are independently hydrogen, alkyl having 1 to 12 carbon atoms, cycloalkyl having 3 to 12 carbon atoms or aryl having 6 to 12 carbon atoms, wherein optional -CH<sub>2</sub>- in the above alkyl having 1 to 12 carbon atoms may be replaced by -O- or arylene having 6 to 12 carbon atoms; optional hydrogens in the above cycloalkyl having 3 to 12 carbon atoms may be replaced by alkyl having 1 to 12 carbon atoms or aryl having 6 to 12 carbon atoms; and optional hydrogens in the above aryl having

6 to 12 carbon atoms may be replaced by alkyl having 1 to 12 carbon atoms, cycloalkyl having 3 to 12 carbon atoms, aryl having 6 to 12 carbon atoms or non-condensed aryl having 12 to 18 carbon atoms; and X is one selected from the group of  
5 groups represented by Formulas (2-1) to (2-15) shown below:



in Formulas (2-1) to (2-15),  $R^{12}$  is independently the same as that represented by  $R^1$  to  $R^4$  in Formula (1); and Ar is independently non-condensed aryl represented by Formula (3):



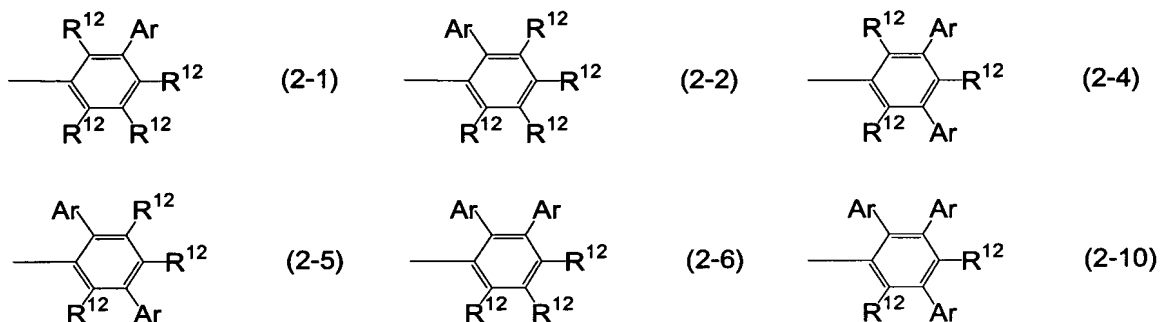
wherein  $n$  is an integer of 0 to 5;  $R^{13}$  to  $R^{21}$  are independently hydrogen, alkyl having 1 to 12 carbon atoms or aryl having 6 to 12 carbon atoms; optional  $-CH_2-$  in the above alkyl having 1 to 12 carbon atoms may be replaced by  $-O-$ , and optional hydrogens in the above aryl having 6 to 12 carbon atoms may be replaced by alkyl having 1 to 12 carbon atoms, cycloalkyl having 3 to 12 carbon atoms or aryl having 6 to 12 carbon atoms.

2. The organic electroluminescent device as described in claim 1, wherein the emission layer comprises as a host, the anthracene derivative in which  $R^1$  to  $R^4$  in Formula (1) are independently hydrogen, methyl or *t*-butyl;  $R^5$  to  $R^{11}$  are independently hydrogen, methyl, *t*-butyl, phenyl, 1-naphthyl, 2-naphthyl, 4-*t*-butylphenyl or *m*-terphenyl-5'-yl;  $X$  is one selected from the group of the groups represented by Formulas (2-1) to (2-15); and in Formulas (2-1) to (2-15),  $R^{12}$  is independently hydrogen, methyl or *t*-butyl.

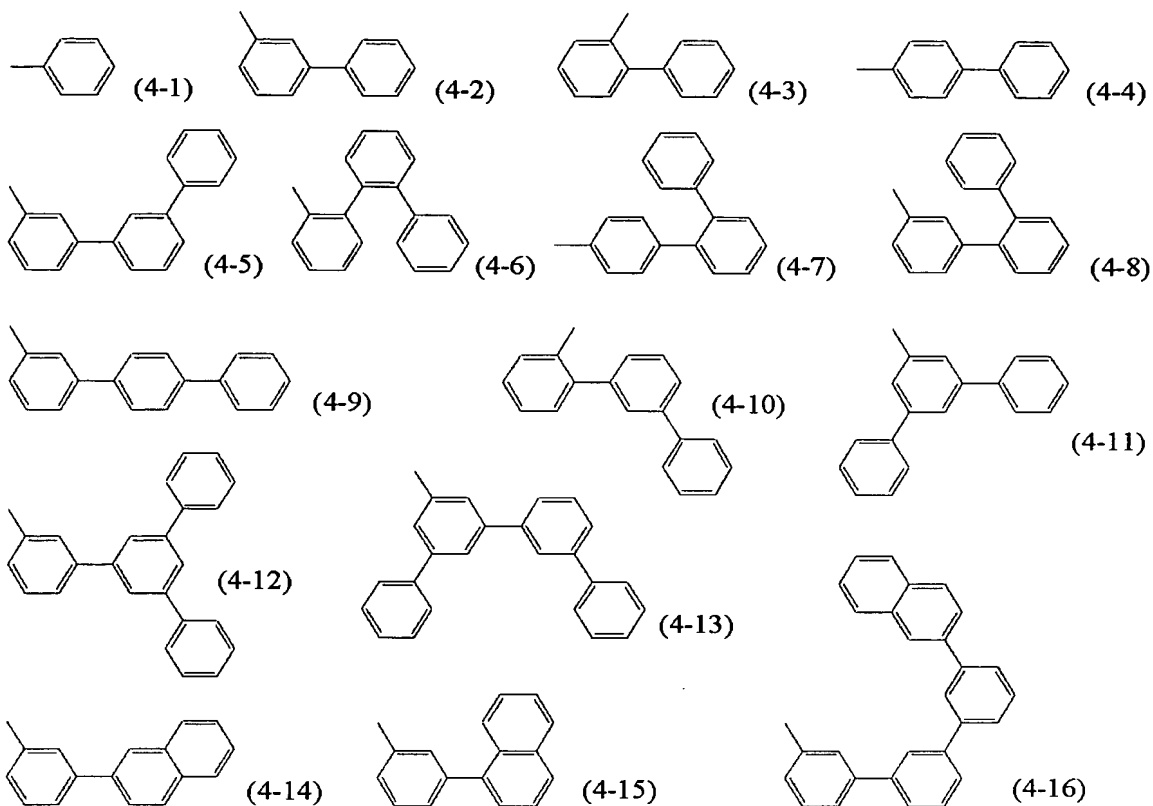
3. The organic electroluminescent device as described in claim 1, wherein the emission layer comprises as a host, the anthracene derivative in which  $R^1$  to  $R^4$  in Formula (1) are hydrogen;  $R^5$  to  $R^{11}$  are independently hydrogen, phenyl, 1-

naphthyl, 2-naphthyl or m-terphenyl-5'-yl; X is one selected from the group of the groups represented by Formulas (2-1) to (2-15); and in Formulas (2-1) to (2-15), R<sup>12</sup> is hydrogen.

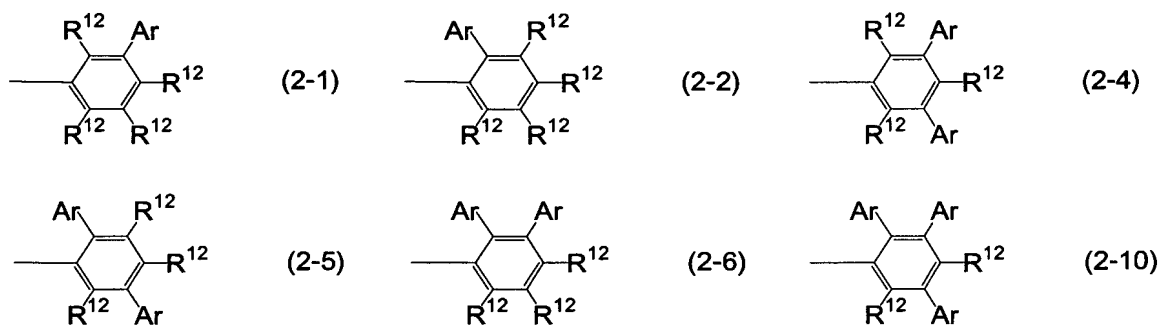
- 5 4. The organic electroluminescent device as described in claim 1, wherein the emission layer comprises as a host, the anthracene derivative in which R<sup>1</sup> to R<sup>4</sup> in Formula (1) are hydrogen; R<sup>5</sup> to R<sup>11</sup> are independently hydrogen, phenyl, 1-naphthyl, 2-naphthyl or m-terphenyl-5'-yl; and X is one  
10 selected from the group of the groups represented by Formulas (2-1), (2-2), (2-4) to (2-6) and (2-10) shown below:



in Formulas (2-1), (2-2), (2-4) to (2-6) and (2-10), R<sup>12</sup> is  
15 hydrogen; and Ar is independently one selected from the group of groups represented by Formulas (4-1) to (4-16) shown below:

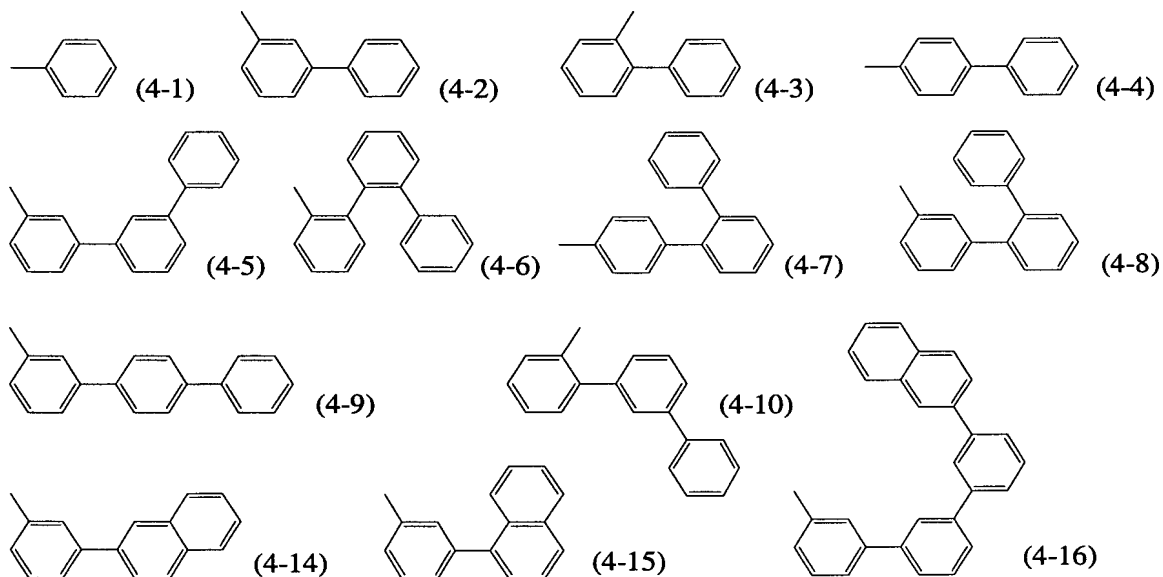


5. The organic electroluminescent device as described in claim 1, wherein the emission layer comprises as a host, the anthracene derivative in which  $R^1$  to  $R^4$  in Formula (1) are hydrogen;  $R^5$  to  $R^{11}$  are independently hydrogen, phenyl, 1-naphthyl, 2-naphthyl or m-terphenyl-5'-yl; and X is one selected from the group of the groups represented by Formulas (2-1), (2-2), (2-4) to (2-6) and (2-10) shown below:



in Formulas (2-1), (2-2), (2-4) to (2-6) and (2-10),  $R^{12}$  is hydrogen; and Ar is independently one selected from the group of groups represented by Formulas (4-1) to (4-10) and (4-14) to (4-16) shown below:

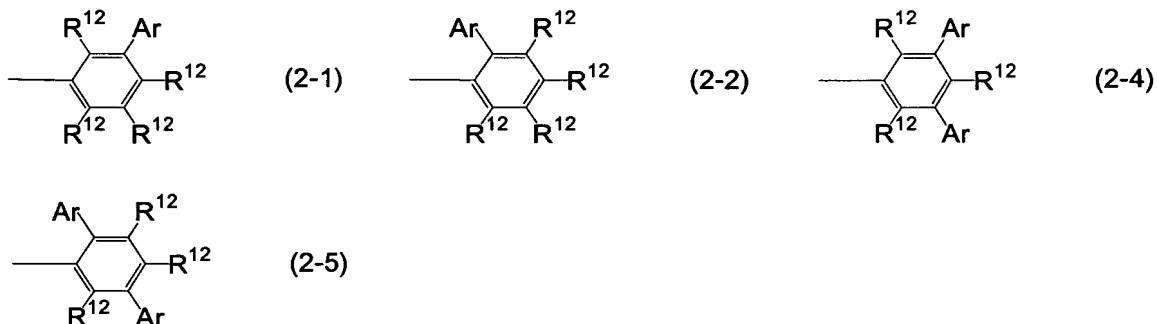
5



6. The organic electroluminescent device as described in claim 1, wherein the emission layer comprises as a host, the anthracene derivative in which  $R^1$  to  $R^4$  in Formula (1) are hydrogen;  $R^5$  to  $R^{11}$  are independently hydrogen, phenyl, 1-naphthyl, 2-naphthyl or m-terphenyl-5'-yl; and X is one

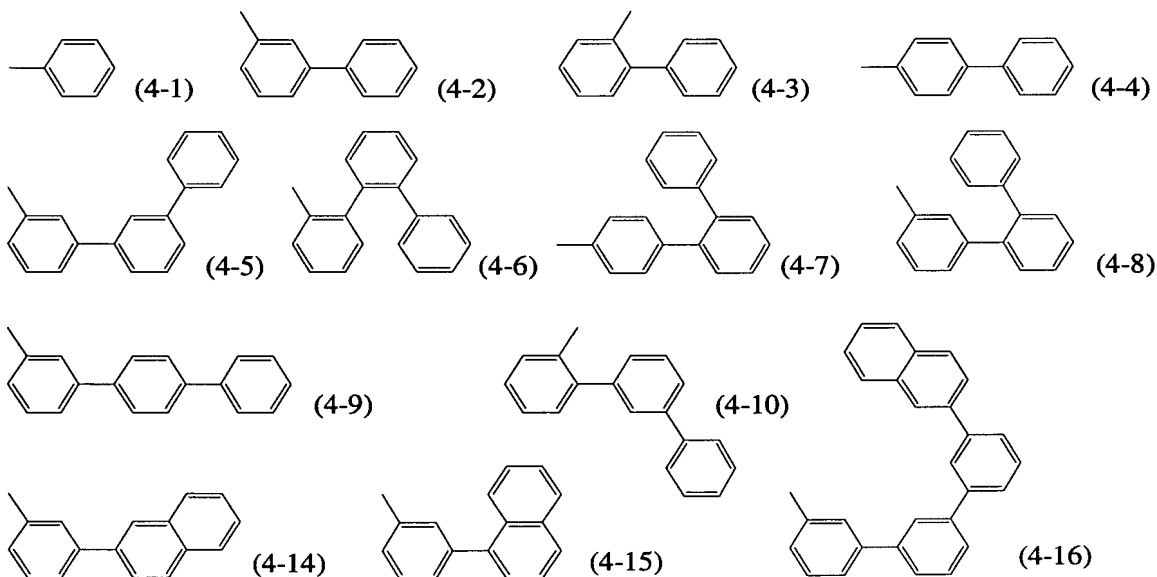
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selected from the group of the groups represented by Formulas (2-1), (2-2), (2-4) and (2-5) shown below:



in Formulas (2-1), (2-2), (2-4) and (2-5), R<sup>12</sup> is hydrogen;

5 and Ar is independently one selected from the group of groups represented by Formulas (4-1) to (4-10) and (4-14) to (4-16) shown below:



10

7. The organic electroluminescent device as described in claims 1 to 6, wherein the electron transport layer comprises a quinolyl base metal complex.

8. The organic electroluminescent device as described in claims 1 to 6, wherein the electron transport layer comprises at least one of a pyridine derivative and a phenanthroline derivative.

5

9. The organic electroluminescent device as described in claim 7, wherein the emission layer comprises the perylene derivative as a dopant.

10 10. The organic electroluminescent device as described in claim 8, wherein the emission layer comprises the perylene derivative as a dopant.

11. The organic electroluminescent device as described in  
15 claim 7, wherein the emission layer comprises the borane derivative as a dopant.

12. The organic electroluminescent device as described in  
claim 8, wherein the emission layer comprises the borane  
20 derivative as a dopant.

13. The organic electroluminescent device as described in claim 7, wherein the emission layer comprises the coumarin derivative as a dopant.

25

14. The organic electroluminescent device as described in



claim 8, wherein the emission layer comprises the coumarin derivative as a dopant.

15. The organic electroluminescent device as described in  
5 claim 7, wherein the emission layer comprises the pyran derivative as a dopant.

16. The organic electroluminescent device as described in  
claim 8, wherein the emission layer comprises the pyran  
10 derivative as a dopant.

17. The organic electroluminescent device as described in  
claim 7, wherein the emission layer comprises the iridium  
complex as a dopant.

15

18. The organic electroluminescent device as described in  
claim 8, wherein the emission layer comprises the iridium  
complex as a dopant.

20 19. The organic electroluminescent device as described in  
claim 7, wherein the emission layer comprises the platinum  
complex as a dopant.

20. The organic electroluminescent device as described in  
25 claim 8, wherein the emission layer comprises the platinum  
complex as a dopant.